



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-0561; Directorate Identifier 2013-NE-23-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Thielert Aircraft Engines GmbH Reciprocating Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all Thielert Aircraft Engines GmbH TAE 125-01 reciprocating engines. This proposed AD was prompted by a report of engine power loss due to engine coolant contaminating the engine clutch. The design of the engine allows the crankcase assembly opening to be susceptible to contamination from external sources. This proposed AD would require applying sealant to close the engine clutch housing (crankcase assembly) opening. We are proposing this AD to prevent in-flight engine power loss, which could result in loss of control of, and damage to, the airplane.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.

- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

- Fax: 202-493-2251.

For service information identified in this proposed AD, contact Thielert Aircraft Engines GmbH, Platanenstrasse 14 D-09350, Lichtenstein, Germany, phone: +49-37204-696-0; fax: +49-37204-696- 55; email: [info@centurion-engines.com](mailto:info@centurion-engines.com). You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the Mandatory Continuing Airworthiness Information (MCAI), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (phone: 800-647-5527) is the same as the Mail address provided in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England

Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238 7199; email: frederick.zink@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0561; Directorate Identifier 2013-NE-23-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477-78).

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness

Directive 2013-0109, dated May 22, 2013 (referred to hereinafter as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

A power loss event was reported on an aeroplane equipped with a TAE 125-01 engine. The investigation results showed that the probable cause was contamination of the engine clutch by coolant spillage during the last maintenance operation. The contamination penetrated the clutch housing through an opening located under the coolant tank that was only closed by a not fluid-tight plastic cover.

You may obtain further information by examining the MCAI in the AD docket. The design of the engine allows the crankcase assembly opening to be susceptible to contamination from external sources. We are proposing this AD to prevent in-flight engine power loss, which could result in loss of control of, and damage to, the airplane.

#### **Relevant Service Information**

Thielert Aircraft Engines GmbH has issued Service Bulletin (SB) No. TM TAE 125-0022, dated August 8, 2012. The SB describes procedures for applying sealant to close the engine clutch housing (crankcase assembly) opening.

#### **FAA’s Determination and Requirements of This Proposed AD**

This product has been approved by the aviation authority of Germany, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design. This proposed AD would require applying sealant to close the engine clutch housing (crankcase assembly) opening.

## **Costs of Compliance**

We estimate that this proposed AD affects 140 engines installed on airplanes of U.S. registry. We also estimate that it would take about 2.5 hours per engine to comply with this proposed AD. The average labor rate is \$85 per hour. Required parts cost about \$110 per engine. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$45,150. Our cost estimate is exclusive of possible warranty coverage.

## **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States,

or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

#### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Thielert Aircraft Engines GmbH:** Docket No. FAA-2013-0561; Directorate Identifier 2013-NE-23-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Thielert Aircraft Engines GmbH TAE 125-01 reciprocating engines.

**(d) Reason**

This AD was prompted by a report of engine power loss due to engine coolant contaminating the engine clutch. The design of the engine allows the crankcase assembly opening to be susceptible to contamination from external sources. We are issuing this AD to prevent in-flight engine power loss, which could result in loss of control of, and damage to, the airplane.

**(e) Actions and Compliance**

Unless already done, do the following actions.

(1) After the effective date of this AD at the next annual or 100-hour inspection, whichever comes first, apply sealant to close the engine clutch housing (crankcase assembly) opening.

(2) Thereafter, reapply sealant to the engine clutch housing (crankcase assembly) opening, whenever the sealant is found to be not liquid-tight, or is removed.

(3) Guidance on the sealant and application can be found in Thielert Aircraft Engines GmbH Service Bulletin No. TM TAE 125-0022, dated August 8, 2012.

**(f) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

**(g) Related Information**

(1) For more information about this AD, contact Frederick Zink, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7779; fax: 781-238-7199; email: frederick.zink@faa.gov.

(2) Refer to European Aviation Safety Agency Airworthiness Directive 2013-0109, dated May 22, 2013, for related information. You may examine the AD on the Internet at <http://ad.easa.europa.eu/ad/2013-0109>.

(3) Thielert Aircraft Engines GmbH Service Bulletin No. TM TAE 125-0022, dated August 8, 2012, which is not incorporated by reference in this AD, can be obtained from Thielert Aircraft Engines GmbH, using the contact information in paragraph (g)(4) of this AD.

(4) For service information identified in this AD, contact Thielert Aircraft Engines GmbH, Platanenstrasse 14 D-09350, Lichtenstein, Germany, telephone: +49-37204-696-0; fax: +49-37204-696-55; e-mail: info@centurion-engines.com. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.



Issued in Burlington, Massachusetts, on July 25, 2013.

Thomas A. Boudreau,  
Acting Assistant Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.

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